

Section 16 Clearing and Grubbing

4-1601 General

This section covers clearing and grubbing, usually one of the first work items. You may pay for the work as a lump-sum item or by the acre. During clearing and grubbing, pay special attention to preserving property and environmentally sensitive areas.

4-1602 Before Work Begins

Take these preliminary inspection steps:

- Review the plans, special provisions, and right-of-way agreements for details that may require special staking or issuing change orders.
- Ensure approval of the water pollution control plan. Review the plan to see that clearing and grubbing conform to the plan.
- Be sure to mark features and facilities to be preserved clearly.
- Discuss with the contractor topics like marking special locations, such as environmentally sensitive areas and additional areas that need clearing. Call the contractor's attention to environmental commitments Caltrans made and regulations and permits that other agencies require.
- Before disposing of material outside the highway right-of-way, review planned disposal sites, referring to Section 5-1.20B(4), "Contractor-Property Owner Agreement," of the *Standard Specifications* and Section 3-708, "Disposal of Material Outside the Highway Right-of-Way," of the *Construction Manual* to determine what the contractor must do.
- If a planned disposal site is not available for state use, discuss the Caltrans policy in Section 7-103D, "Disposal, Staging and Borrow Sites," of this manual with the contractor. To ensure mutual understanding and agreement, hold a joint meeting including the contractor, environmental or construction liaison, and appropriate regulatory agencies. The contractor must obtain and submit permits, environmental studies, and documentation, among other items required by agencies having jurisdiction over the site. If the contractor satisfies all submittal requirements for the disposal site, provide written permission for disposal outside the highway right-of-way.
- Before permitting the contractor to chip plant materials for disposal on the jobsite, investigate to determine if plant disease or insect pests will be spread to disease-free or insect-free areas. You can obtain technical advice on diseases and insects in cultivated trees from the county agricultural extension offices. For advice about natural forest trees, contact the California Department of Forestry or the U.S. Forest Service. If the decontamination of chips is advisable and the contract does not provide for pest control, ensure that this work is done as an ordered change.

4-1603 During the Course of Work

During the work, take the following steps:

- Ensure that the contractor's equipment has the required safety devices to protect personnel. In forest areas, make sure equipment uses required spark arresters on equipment.
- Be sure the contractor's operation does not create a public hazard. If necessary, require traffic control during timber falling.

- Periodically observe the operation to ensure the prevention of damage to adjacent property and environmentally sensitive areas and the preservation of trees and facilities that are to remain. As set forth in permits and agreements, verify the contractor's adherence to environmental commitments and permits. For deviations and violations, document and require corrective action by the contractor, and consult with the district environmental unit for review and comment.
- Determine the limits of clearing areas that do not require stump removal and check the height of stumps above natural ground.
- Determine if dead, dying, or otherwise unstable trees located in the right-of-way (but outside the clearing limits) constitute a hazard. Have such trees removed.
- The contract may state that merchantable timber is the property of other agencies. Check that timber handling adheres to the agreement with these agencies.
- When burial of debris within the right-of-way is allowed, ensure that debris will not act as a permeable layer, does not block drainage, and will not interfere with maintenance. Also, make sure that no material is buried within the roadway prism unless the special provisions allow otherwise.
- Ensure that the burial of debris both on and off the right-of-way is not aesthetically detrimental and does not create contamination problems. Keep accurate records whenever solid wastes that might interfere with future work are disposed of by burying them adjacent to the roadway. Show this information on the as-built plans.
- When burning is allowable, be sure the contractor has obtained a permit from the air pollution control officer of the local or regional authority. Prohibit burning at locations where the smoke will impede visibility for public traffic. Ensure that the contractor takes adequate precautions, such as constructing fire trails and posting guards, to prevent the uncontrolled spreading of fires. When poison ivy, oak, or sumac is present in areas where burning is allowable, make sure that the burning of these materials complies with any local ordinances or safety regulations.
- Ensure that tree branches extending over the roadway are cut off as required by the *Standard Specifications*. During the removal of additional branches, see that the contractor presents a balanced appearance of the trees.
- A checklist showing locations where clearing is incomplete may be necessary in the final stages of the operation. Do not make complete payment until all areas have a neat and finished appearance.

4-1604 Measurement and Payment

If the work is not completed within one pay period, determine a pay system that provides for periodic payments and represents the true percentage of the work completed.